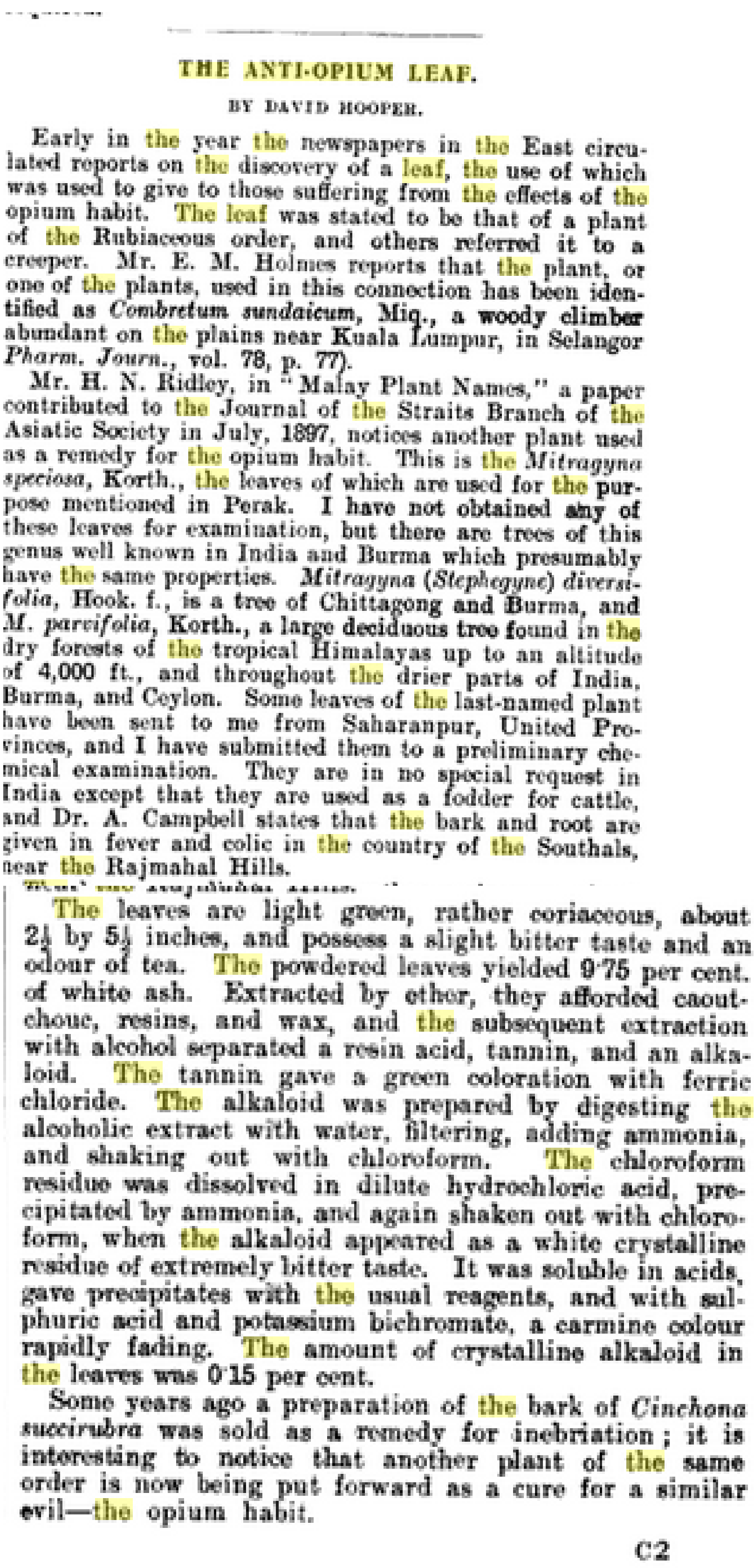
Hooper D (1907). The anti-opium leaf. Pharmaceutical Journal 453.



THE ANTI-OPIUM LEAF.

BY DAVID HOOPER.

Early in the year the newspapers in the East circulated reports on the discovery of a leaf, the use of which was used to give to those suffering from the effects of the opium habit. The leaf was stated to be that of a plant of the Rubiaceous order, and others referred it to a creeper. Mr. E. M. Holmes reports that the plant, or one of the plants, used in this connection has been identified as *Combretum sundaicum*, Miq., a woody climber abundant on the plains near Kuala Lumpur, in Selangor *Pharm. Journ.*, vol. 78, p. 77).

Mr. H. N. Ridley, in "Malay Plant Names," a paper contributed to the Journal of the Straits Branch of the Asiatic Society in July, 1897, notices another plant used as a remedy for the opium habit. This is the *Mitragyna speciosa*, Korth., the leaves of which are used for the purpose mentioned in Perak. I have not obtained any of these leaves for examination, but there are trees of this genus well known in India and Burma which presumably have the same properties. *Mitragyna* (*Stephegyne*) *diversifolia*, Hook. f., is a tree of Chittagong and Burma, and *M. parvifolia*, Korth., a large deciduous tree found in the dry forests of the tropical Himalayas up to an altitude of 4,000 ft., and throughout the drier parts of India, Burma, and Ceylon. Some leaves of the last-named plant have been sent to me from Saharanpur, United Provinces, and I have submitted them to a preliminary chemical examination. They are in no special request in India except that they are used as a fodder for cattle, and Dr. A. Campbell states that the bark and root are given in fever and colic in the country of the Southals, near the Rajmahal Hills.

The leaves are light green, rather coriaceous, about 2½ by 5½ inches, and possess a slight bitter taste and an odour of tea. The powdered leaves yielded 9·75 per cent. of white ash. Extracted by ether, they afforded caoutchouc, resins, and wax, and the subsequent extraction with alcohol separated a resin acid, tannin, and an alkaloid. The tannin gave a green coloration with ferric chloride. The alkaloid was prepared by digesting the alcoholic extract with water, filtering, adding ammonia, and shaking out with chloroform. The chloroform residue was dissolved in dilute hydrochloric acid, precipitated by ammonia, and again shaken out with chloroform, when the alkaloid appeared as a white crystalline residue of extremely bitter taste. It was soluble in acids, gave precipitates with the usual reagents, and with sulphuric acid and potassium bichromate, a carmine colour rapidly fading. The amount of crystalline alkaloid in the leaves was 0·15 per cent.

Some years ago a preparation of the bark of *Cinchona succirubra* was sold as a remedy for inebriation; it is interesting to notice that another plant of the same order is now being put forward as a cure for a similar evil—the opium habit.